

Entomology for Florida Living
Emphasis on Mosquitoes and Mosquito-borne Diseases
Dr. Jack Peterson¹ and Dr. Roxanne Rutledge²

This program has been structured to teach Florida citizens how to coexist with Florida's abundant insect inhabitants. Utilizing examples taken from mosquito biology and from the study of mosquito-borne diseases, program providers will teach core concepts of epidemiology and pest management central to that coexistence.

In learning about the life history of various mosquito species, participants will reach an understanding of how insects occupy unique environmental niches and that control efforts taken within relatively short distances of homes and neighborhoods often improve the comfort and safety of the people living there.

Participants will become more informed concerning mechanisms and modes of human disease transmission by mosquitoes and other arthropods, and as a result, be better able to avoid such infection. Through a series of well-illustrated examples of the spread of indigenous and introduced diseases, the participants will be introduced to the fundamental concepts of epidemiology.

Participants will gain a clear understanding, well-founded in a living context, of the integrated pest management concept, and the importance of targeting pest species with a pluralistic approach, while minimizing the negative impact on Florida's natural environment.

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² C. Roxanne Rutledge, Ph.D., Extension Medical Entomologist, Florida Medical Entomology Laboratory, Institute of Food and Agricultural Sciences.

Program Offerings:

December 18, 2001
Santa Rosa County
PJC Milton Auditorium
Bldg 4900
5988 Hwy 90
Milton, FL 32583

Contacts:

Mike Donahoe or
Dan Mullins (850) 623-3868

December 19, 2001
Jackson County
Jackson County Agriculture Center
3631 Hwy 90 (Fairgrounds)
Marianna, FL 32448

Contacts:

Ed Jowers or
Charles Brasher (850) 482-9620

December 20, 2001
Leon County
Leon County Extension Auditor
615 Paul Russell Rd
Tallahassee, FL 32301

Contacts:

Lawrence Heitmeyer or
William Sheftall (850) 487-4817

Program Agenda:

- 8:30 8:40 Introductions The role of Extension programs at the University of Florida and Florida A&M University
Dr. Jack Peterson
Dr. Roxanne Rutledge
- 8:40 9:30 Mosquito reproduction and life history. Presentation includes an introduction to holometabolic metamorphosis contrasted with other forms of insect development
- 9:30 10:20 Environmental niches. Discussion of mosquito larvae habitats unique to species; defines the concept of environmental niches. This presentation emphasizes the need to understand a pest prior to beginning control practices for that pest.
- 10:20 10:30 Break
- 10:30 11:20 How mosquitos transmit disease. This presentation provides a look at the actual mechanisms of pathogen vectoring by insects. Consideration is given to mechanical transfer, pathogen reproduction within vectoring insect, intermediate & alternate hosts.
- 11:20 12:10 Disease surveillance. Consideration given to Eastern Equine Encephalitis, St. Louis Encephalitis, and West Nile Virus: occurrence and potential risks for the U.S. in general and Florida in particular.
- 12:20 12:20 Information Resources: FMEL
Mosquito Control Districts
Encephalitis Web sites
- 12:20 Questions / Answers / Discussion

Four (4) hours of Continuing Education Unit credit for recertification of Restricted-Use Pesticide licenses will be offered to program participants in either the Public Health or the General Standards core categories.